

CRSP South Capital Investment Plan FY12-FY21 Detail

Yellow Highlight = New Project to list

Red Text = Change from previous version

Blue Text = will be removed from list

Green Highlight = Annual Equipment Replacement Programs

W Total = Western Only Costs

O Total = Trust and Joint Participation Costs

FY Total = Sum of W Total and O Total

MPS Split = Multiple Power System Cost Split.

PROJECT	Fund Power Sys	PROJECT TOTAL	FY12					FY13				
			W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450	110	10	100		110	110	10	100		110
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15	15	15			15					
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100						6,100	100	6,000		6,100
T-Line SubTotal		6,565	125	25	100		125	6,210	110	6,100		6,210
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon, and Pinnacle Peak	CRSPVMF	2,000						200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150	150	150			150					
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148	130	6	124		130	5	5			5
Main Battery Replacement at Glen Canyon	CRSPVMF	71	65		65		65	6	6			6
Completion of 230/130 kV Transformer Addltn at Garkane	CRSPVMF	950	950	750	200		950					
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300						1,500	700	800		1,500
Substation SubTotal		8,619	1,295	906	389		1,295	1,711	761	950		1,711
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024	1,024	384	640		1,024					
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60	30	20	10		30	15	5	10		15
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640	320	200	120		320	320	200	120		320
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75	75	13	62		75					
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95	95	80	15		95					
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100	100	98	2		100					
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501	501	150	351		501	15	15			15
Communications SubTotal		2,880	2,180	955	1,225		2,180	385	230	155		385
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	332	332			332	220	220			220
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	40		40		40	60		60		60
Mobile & Heavy Equipment SubTotal		640	40		40		40	60		60		60
Programmatic Improvements												
Physical Security Upgrades - Flagstaff	CRSPVMF	45	45	5	40		45					
Security Camera Upgrades - Glen Canyon	CRSPVMF	45										
Programmatic Improvements SubTotal		90	45	5	40		45					
DSW FY12 CRSP CIP Grand Total												
		20,336	4,017	2,223	1,794		4,017	8,586	1,321	7,265		8,586

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FY Total = Sum of W Tr

MPS Split = Multiple P

PROJECT	Fund Power Sys	PROJECT TOTAL	FY14					FY15				
			W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450	120	10	110		120	110	10	100		110
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100										
T-Line SubTotal		6,565	120		110		120	110	10	100		110
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon, and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150										
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148										
Main Battery Replacement at Glen Canyon	CRSPVMF	71										
Completion of 230/130 kV Transformer Addlition at Garkane	CRSPVMF	950										
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300	1,900	450	1,450		1,900	1,900	450	1,450		1,900
Substation SubTotal		8,619	2,100	500	1,600		2,100	2,100	500	1,600		2,100
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024										
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60	15	5	10		15					
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640										
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75										
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95										
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100										
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501										
Communications SubTotal		2,880	50	15	35		50	35	10	25		35
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60
Programmatic Improvements												
Physical Security Upgrades - Flagstaff	CRSPVMF	45										
Security Camera Upgrades - Glen Canyon	CRSPVMF	45	45	5	40		45			35		
Programmatic Improvements SubTotal		90	45	5	40		45			35		
DSW FY12 CRSP CIP Grand Total				20,336	2,485	630	1,845	2,485	2,415	630	1,820	2,415

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PROJECT	Fund Power Sys	PROJECT TOTAL	FY16					FY17				
			W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450										
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100										
T-Line SubTotal		6,565										
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon, and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150										
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148										
Main Battery Replacement at Glen Canyon	CRSPVMF	71										
Completion of 230/130 kV Transformer Addlition at Garkane	CRSPVMF	950										
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300										
Substation SubTotal		8,619	200	50	150		200	200	50	150		
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024										
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60										
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640										
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75										
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95										
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100										
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501										
Communications SubTotal		2,880	35	10	25		35	35	10	25		35
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60
Programmatic Improvements												
Physical Security Upgrades - Flagstaff	CRSPVMF	45										
Security Camera Upgrades - Glen Canyon	CRSPVMF	45										
Programmatic Improvements SubTotal		90										
DSW FY12 CRSP CIP Grand Total		20,336	405	170	235		405	405	170	235		205

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PROJECT	Fund Power Sys	PROJECT TOTAL	FY18					FY19				
			W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450										
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100										
T-Line SubTotal		6,565										
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon, and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150										
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148										
Main Battery Replacement at Glen Canyon	CRSPVMF	71										
Completion of 230/130 kV Transformer Addltn at Garkane	CRSPVMF	950										
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300										
Substation SubTotal		8,619										
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024										
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60										
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640										
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75										
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95										
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100										
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501										
Communications SubTotal		2,880	35	10	25		35	35	10	25		35
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60
Programmatic Improvements												
Physical Security Upgrades - Flagstaff	CRSPVMF	45										
Security Camera Upgrades - Glen Canyon	CRSPVMF	45										
Programmatic Improvements SubTotal		90										
DSW FY12 CRSP CIP Grand Total		20,336	205	120	85		205	205	120	85		205

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PROJECT	Fund Power Sys	PROJECT TOTAL	FY20					FY21				
			W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450										
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100										
T-Line SubTotal		6,565										
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon, and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150										
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148										
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Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300										
Substation SubTotal		8,619										
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024										
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60										
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640										
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75										
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95										
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100										
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501										
Communications SubTotal		2,880	35	10	25		35	35	10	25		35
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60
Programmatic Improvements												
Physical Security Upgrades - Flagstaff	CRSPVMF	45										
Security Camera Upgrades - Glen Canyon	CRSPVMF	45										
Programmatic Improvements SubTotal		90										
DSW FY12 CRSP CIP Grand Total		20,336	205	120	85		205	205	120	85		205